Economic Losses of Scott Ballock

by Clifford B. Hawley, Ph.D.

March 25th, 2019

note: This is a preliminary report and is subject to change based upon new or corrected information and/or changed circumstances.

EXHIBIT 2

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I. Introduction

I have been asked by attorney Charles Crooks to estimate the economic losses of Scott Ballock. Mr. Ballock had worked for the federal government since September of 1994 and as an agent of the Federal Bureau of Investigation (FBI) since June of 2003. He was terminated from his employment with the FBI on September 26, 2017.

In preparing this report I have reviewed and relied on the following case information:

1. Third Amended Complaint.
2. Plaintiff's Responses to Trooper Defendants' First Set of Interrogatories.
3. Scott Ballock's Resume.
4. Ballock W-2 information 2012-2018.
5. Information supplied to me by Mr. Ballock in response to my "Wrongful Termination Checklist."

I estimate Scott Ballock's economic losses to date to be $238,690. In addition, I estimate that the present value of future economic losses exclusive of lost pension benefits is from $1,057,349 to $1,200,449. Also, I estimate that his pension losses are $655,353. Thus economic losses in total here range from $1,951,392 to $2,094,492. Table 7 is a summary table.

Each section below describes the bases for these estimates and the tables attached provide the supporting calculations. All sums in this report are rounded to the nearest dollar.

II. Earnings & Benefits Losses to Date

Scott Ballock was born September 3, 1968. He is fifty years old. He is Caucasian. He

holds a masters degree in criminal justice from Indiana University. He has a life expectancy per government life tables of 29.9 years. Equivalently he can be expected to live into his eightieth year and into late July of 2048.

At the time of his termination Scott Ballock had a pay grade of GS 14-6. As an agent for the FBI he received a twenty-five percent supplement to compensate for being on call 24/7. In August of 2018 Scott Ballock could have anticipated moving to a GS 14-7. Table 1 shows his earnings absent termination to the present. The present or "to date" here is defined as mid-2019. 2019 earnings include a 1.9 percent raise.

Economic losses not only include earnings losses but also losses of benefits. One way to value these is at employer cost. In a Congressional Budget Office Working Paper (2012-4) Justin Falk ("Comparing Benefits and Total Compensation in the Federal Government and the Private Sector") finds that the benefits of health insurance, defined contribution retirement benefits, and legally mandated benefits average 29.8 percent of wages in the federal sector. I use this as the benefit rate for Ballock's federal employment. I exclude consideration of defined benefit costs since pension losses will considered explicitly below. Table 1 shows the supporting calculations.

Table 2 shows earnings and benefits to date with termination. The 2017 and 2018 entries use W-2 earnings information. The 2019 entry is based on an annual salary of $55,000 plus a $2,500 bonus. I value benefits given termination at twenty-seven percent of earnings. This is the U.S. average. Data from the U.S. Department of Labor's Bureau of Labor Statistics (*Employer Costs for Employee Compensation – September 2018*, USDL-18-1941, December 2018) show that the benefits of insurances, retirement, and legally required benefits average twenty-seven percent of the earnings for work, paid leave, and supplementary pay.

The difference between the totals in Table 1 and Table 2 is Scott Ballock's earnings and benefit losses to date. These are $238,690.

III. The Present Value of Future Earnings and Benefits Losses

Next, I estimate the present value of future earnings and benefits losses to age 65. Table 3 reports the present value of earnings and benefits absent termination. Scott Ballock could anticipate moving to a GS 14-8 in August of 2021 and to a GS 14-9 three years later. The table is constructed assuming a retirement from the FBI at the end of September 2025 at the age of fifty-seven. It also assumes yearly increases of 1.7% in the salary schedule.

After retiring from federal employment one may still work in the private sector or find state or local public employment. The table assumes that he could find employment at the equivalent of $100,000 today in 2019 with this sum growing with inflation by two percent each year. In this non-federal employment I take benefits at twenty-seven percent.

It should be noted that for now I have not assumed any promotion for Scott Ballock. Nor have I included any earnings for holiday work. Finally for now, I have not included bridge payments that absent termination Scott Ballock would have received. These are payments made between the FBI agent's retirement date and age 62 and are based on the agent's future Social Security benefits. The dollar value of these bridge payments is not inconsequential.

Table 4 reports the present value of earnings and benefits with termination. These are based on Scott Ballock's current annual salary plus expected bonus and totals $57,500. These earnings are increased at two percent per year. As before, benefits are taken to be twenty-seven percent of wages. To calculate the present value of future earnings and benefits in both Table 3 and Table 4, I use a discount or interest rate of three percent.

The difference between the accumulated present values in Table 3 and Table 4 is the present value of future economic losses to age 65 and is $1,200,449. I also provide a second and lower estimate only to age 62. In this instance the present value of future losses to age 62 is $1,057,349.

IV. Lost Pension Income

Absent termination Scott Ballock could have expected to receive a pension beginning at age fifty-seven and with thirty-one years of credited service. With termination his pension will begin at age sixty and he will have only twenty-three years of credited service. Each pension is based on a "High-3 average," i.e., the average of the highest three years of earnings. The pension is calculated as that average multiplied by 1.7 percent times years of service up to 20 years plus the High-3 average times one percent multiplied by the years of service that exceed twenty years.

As Table 5 and Table 6 show, absent termination Scott Ballock could expect a pension of $79,758 per year and with termination a pension of $53,331 per year.

The tables are carried out to life expectancy. I use a one percent net discount or net interest rate to bring sums to present value.

The difference between the present value totals in Tables 5 and 6 is the estimate of Scott Ballock's pension losses. These losses are $655,353.

V. Summary and Conclusion

In conclusion, Scott Ballock's losses to date are $238,690. I estimate that his future earnings and benefits losses in present value range from $1,057,349 to $1,200,449. I calculate that his pension losses are in total, $655,353. Thus I estimate that Scott Ballock's economic

losses are from $1,951,392 to $2,094,492.

Based on the information provided to me at this date and the assumptions contained within this report, it is my opinion that the estimates here of Scott Ballock's economic losses are accurate to a reasonable degree of economic certainty.

Respectfully submitted,

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TABLE 1

EARNINGS AND BENEFITS

TO DATE

ABSENT EMPLOYMENT TERMINATION

SCOTT BALLOCK

YEAR	EARNINGS ABSENT TERMINATION	BENEFITS ABSENT TERMINATION	EARN + BEN ABSENT TERMINATION
2017	$36,973	$11,018	$47,990
2018	$151,795	$45,235	$197,030
2019	$78,799	$23,482	$102,281
SUMS:	$267,567	$79,735	$347,301

TABLE 2

EARNINGS AND BENEFITS

TO DATE

WITH EMPLOYMENT TERMINATION

SCOTT BALLOCK

YEAR	EARNINGS WITH TERMINATION	BENEFITS WITH TERMINATION	EARN + BEN WITH TERMINATION
2017	$3,197	$863	$4,060
2018	$53,574	$14,465	$68,039
2019	$28,750	$7,763	$36,513
SUMS:	$85,521	$23,091	$108,611

TABLE 3

PRESENT VALUE OF FUTURE EARNINGS AND BENEFITS

ABSENT EMPLOYMENT TERMINATION

SCOTT BALLOCK

YEAR	EARNINGS ABSENT TERMINATION	BENEFITS ABSENT TERMINATION	EARN + BEN ABSENT TERMINATION	PRES. VAL. EARN + BEN	ACCUM EARN + BEN PRES. VAL	
2019	$78,799	$23,482	$102,281	$101,528	$101,528	
2020	$160,276	$47,762	$208,039	$201,979	$303,507	
2021	$164,510	$49,024	$213,535	$201,277	$504,784	
2022	$170,377	$50,772	$221,149	$202,383	$707,167	
2023	$173,274	$51,636	$224,909	$199,829	$906,996	
2024	$177,807	$52,986	$230,793	$199,084	$1,106,080	
2025	$166,198	$48,364	$214,562	$179,692	$1,285,772	
2026	$114,869	$31,015	$145,883	$118,616	$1,404,388	
2027	$117,166	$31,635	$148,801	$117,465	$1,521,853	
2028	$119,509	$32,267	$151,777	$116,324	$1,638,177	
2029	$121,899	$32,913	$154,812	$115,195	$1,753,372	
2030	$124,337	$33,571	$157,909	$114,076	$1,867,449	$1,830,057 =age 62
2031	$126,824	$34,243	$161,067	$112,969	$1,980,418	
2032	$129,361	$34,927	$164,288	$111,872	$2,092,290	
2033	$88,698	$23,949	$112,647	$74,473	$2,166,763	

TABLE 4

PRESENT VALUE OF FUTURE EARNINGS AND BENEFITS

WITH EMPLOYMENT TERMINATION

SCOTT BALLOCK

YEAR	EARNINGS WITH TERMINATION	BENEFITS WITH TERMINATION	EARN + BEN WITH TERMINATION	PRES. VAL. EARN + BEN	ACCUM EARN + BEN PRES. VAL	
2019	$28,750	$7,763	$36,513	$36,244	$36,244	
2020	$58,650	$15,836	$74,486	$72,316	$108,560	
2021	$59,823	$16,152	$75,975	$71,614	$180,174	
2022	$61,019	$16,475	$77,495	$70,919	$251,092	
2023	$62,240	$16,805	$79,045	$70,230	$321,322	
2024	$63,485	$17,141	$80,626	$69,548	$390,871	
2025	$64,754	$17,484	$82,238	$68,873	$459,744	
2026	$66,049	$17,833	$83,883	$68,204	$527,948	
2027	$67,370	$18,190	$85,560	$67,542	$595,490	
2028	$68,718	$18,554	$87,272	$66,886	$662,377	
2029	$70,092	$18,925	$89,017	$66,237	$728,614	
2030	$71,494	$19,303	$90,797	$65,594	$794,208	$772,707 =age 62
2031	$72,924	$19,689	$92,613	$64,957	$859,165	
2032	$74,382	$20,083	$94,466	$64,326	$923,491	
2033	$51,002	$13,770	$64,772	$42,822	$966,313	
SUMS:	$940,753	$254,003	$1,194,756	$966,313		

TABLE 5

PRESENT VALUE OF PENSION ABSENT TERMINATION

SCOTT BALLOCK

AGE 9/3	YEAR	ANNUAL PENSION	PRES VAL ANNUAL PENSION	ACCUM PRES VAL PENSION
57	2025	$19,939	$18,784	$18,784
58	2026	$79,758	$74,392	$93,175
59	2027	$79,758	$73,655	$166,830
60	2028	$79,758	$72,926	$239,756
61	2029	$79,758	$72,204	$311,960
62	2030	$79,758	$71,489	$383,449
63	2031	$79,758	$70,781	$454,230
64	2032	$79,758	$70,080	$524,310
65	2033	$79,758	$69,386	$593,696
66	2034	$79,758	$68,699	$662,395
67	2035	$79,758	$68,019	$730,415
68	2036	$79,758	$67,346	$797,760
69	2037	$79,758	$66,679	$864,439
70	2038	$79,758	$66,019	$930,458
71	2039	$79,758	$65,365	$995,823
72	2040	$79,758	$64,718	$1,060,541
73	2041	$79,758	$64,077	$1,124,618
74	2042	$79,758	$63,443	$1,188,061
75	2043	$79,758	$62,815	$1,250,875
76	2044	$79,758	$62,193	$1,313,068
77	2045	$79,758	$61,577	$1,374,645
78	2046	$79,758	$60,967	$1,435,612
79	2047	$79,758	$60,364	$1,495,975
80	2048	$46,525	$34,863	$1,530,839
	SUM:	$1,821,136	$1,530,839	

TABLE 6

PRESENT VALUE OF PENSION WITH TERMINATION

SCOTT BALLOCK

AGE 9/3	YEAR	ANNUAL PENSION	PRES VAL ANNUAL PENSION	ACCUM PRES VAL PENSION
60	2028	$13,333	$12,191	$12,191
61	2029	$53,331	$48,280	$60,470
62	2030	$53,331	$47,802	$108,272
63	2031	$53,331	$47,328	$155,600
64	2032	$53,331	$46,860	$202,460
65	2033	$53,331	$46,396	$248,856
66	2034	$53,331	$45,936	$294,793
67	2035	$53,331	$45,482	$340,274
68	2036	$53,331	$45,031	$385,306
69	2037	$53,331	$44,585	$429,891
70	2038	$53,331	$44,144	$474,035
71	2039	$53,331	$43,707	$517,742
72	2040	$53,331	$43,274	$561,016
73	2041	$53,331	$42,846	$603,862
74	2042	$53,331	$42,422	$646,284
75	2043	$53,331	$42,002	$688,285
76	2044	$53,331	$41,586	$729,871
77	2045	$53,331	$41,174	$771,045
78	2046	$53,331	$40,766	$811,811
79	2047	$53,331	$40,363	$852,174
80	2048	$31,110	$23,312	$875,486
	SUM:	$1,057,728	$875,486	

TABLE 7

SUMMARY

ECONOMIC LOSSES

SCOTT BALLOCK

	Age 62	AGE 65
TO DATE:	$238,690	$238,690
PV-FUTURE:	$1,057,349	$1,200,449
PENSION LOSSES:	$655,353	$655,353
TOTAL:	$1,951,392	$2,094,492

Appendix

	Salary					
	GS 14-6	GS 14-7	GS 14-8	GS 14-9	post-FBI	Annual Pay
2017	**$147,890.00**					$147,890.00
2018	**$150,363.75**	**$154,658.75**	$158,955.00	$163,251.25		$151,795.42
2019		**$157,597.27**	$161,975.15	$166,353.02	$100,000.00	$157,597.27
2020		**$160,276.42**	$164,728.72	$169,181.03	$102,000.00	$160,276.42
2021		**$163,001.12**	**$167,529.11**	$172,057.10	$104,040.00	$164,510.45
2022			**$170,377.11**	$174,982.07	$106,120.80	$170,377.11
2023			**$173,273.52**	$177,956.77	$108,243.22	$173,273.52
2024			**$176,219.17**	**$180,982.03**	$110,408.08	$177,806.79
2025				**$184,058.73**	**$112,616.24**	$166,198.11
2026					**$114,868.57**	$114,868.57
2027					**$117,165.94**	$117,165.94
2028					**$119,509.26**	$119,509.26
2029					**$121,899.44**	$121,899.44
2030					**$124,337.43**	$124,337.43
2031					**$126,824.18**	$126,824.18
2032					**$129,360.66**	$129,360.66
2033					**$131,947.88**	$131,947.88

Pension

Absent term			**With term**		
2022	$42,594	3 mnths	2014	$35,555	3 mnths
2023	$173,274		2015	$143,940	
2024	$177,807		2016	$141,999	
2025	$138,044	9 months	2017	$110,918	9 months
High 3 avg	**$177,240**			**$144,137**	
generosity=	**1.7%**			**1.7%**	
	20			**20**	
	$60,261			**$49,007**	
generosity=	**1.0%**			**1.0%**	
	11			**3**	
	$19,496			**$4,324**	
Tot ann pension	**$79,758**		Tot ann pension	**$53,331**	
monthly	**$6,646.48**		monthly	**$4,444.24**	

FederalPay.org

GS Locality Rates
2018 REST OF UNITED STATES

2018 Locality Adjustment: 15.37%

Official General Schedule Locality Rates for REST OF UNITED STATES
Effective from January 1, 2018 to December 31, 2018.

GS Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
GS-1	$21,672	$22,398	$23,119	$23,835	$24,557	$24,978	$25,689	$26,409	$26,437	$27,114
GS-2	$24,367	$24,948	$25,754	$26,437	$26,737	$27,524	$28,311	$29,097	$29,884	$30,671
GS-3	$26,587	$27,473	$28,359	$29,245	$30,131	$31,017	$31,903	$32,789	$33,675	$34,561
GS-4	$29,847	$30,842	$31,836	$32,831	$33,825	$34,820	$35,814	$36,809	$37,803	$38,798
GS-5	$33,394	$34,507	$35,620	$36,734	$37,847	$38,960	$40,074	$41,187	$42,300	$43,414
GS-6	$37,223	$38,463	$39,703	$40,944	$42,184	$43,424	$44,664	$45,905	$47,145	$48,385
GS-7	$41,365	$42,743	$44,122	$45,501	$46,879	$48,258	$49,637	$51,015	$52,394	$53,773
GS-8	$45,810	$47,337	$48,865	$50,392	$51,920	$53,447	$54,975	$56,502	$58,030	$59,557
GS-9	$50,598	$52,285	$53,971	$55,658	$57,345	$59,031	$60,718	$62,405	$64,092	$65,778
GS-10	$55,720	$57,578	$59,435	$61,293	$63,150	$65,008	$66,865	$68,722	$70,580	$72,437
GS-11	$61,218	$63,259	$65,299	$67,340	$69,381	$71,422	$73,463	$75,504	$77,545	$79,586
GS-12	$73,375	$75,821	$78,267	$80,713	$83,159	$85,605	$88,050	$90,496	$92,942	$95,388
GS-13	$87,252	$90,161	$93,069	$95,977	$98,886	$101,794	$104,703	$107,611	$110,520	$113,428
GS-14	$103,106	$106,543	$109,980	$113,417	$116,854	$120,291	$123,727	$127,164	$130,601	$134,038
GS-15	$121,280	$125,323	$129,366	$133,408	$137,451	$141,493	$145,536	$149,578	$153,621	$157,663

Table 5. Life table for white males: United States, 2015

Spreadsheet version available from: ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/67_07/Table05.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.005334	100,000	533	99,531	7,657,279	76.6
1–2	0.000391	99,467	39	99,447	7,557,749	76.0
2–3	0.000243	99,428	24	99,416	7,458,302	75.0
3–4	0.000209	99,403	21	99,393	7,358,886	74.0
4–5	0.000151	99,383	15	99,375	7,259,493	73.0
5–6	0.000150	99,368	15	99,360	7,160,118	72.1
6–7	0.000135	99,353	13	99,346	7,060,757	71.1
7–8	0.000121	99,339	12	99,333	6,961,411	70.1
8–9	0.000108	99,327	11	99,322	6,862,078	69.1
9–10	0.000095	99,317	9	99,312	6,762,756	68.1
10–11	0.000090	99,307	9	99,303	6,663,444	67.1
11–12	0.000099	99,298	10	99,293	6,564,141	66.1
12–13	0.000133	99,289	13	99,282	6,464,847	65.1
13–14	0.000196	99,275	19	99,266	6,365,565	64.1
14–15	0.000283	99,256	28	99,242	6,266,300	63.1
15–16	0.000375	99,228	37	99,209	6,167,058	62.2
16–17	0.000472	99,191	47	99,167	6,067,849	61.2
17–18	0.000587	99,144	58	99,115	5,968,681	60.2
18–19	0.000722	99,086	72	99,050	5,869,567	59.2
19–20	0.000865	99,014	86	98,971	5,770,517	58.3
20–21	0.001013	98,928	100	98,878	5,671,546	57.3
21–22	0.001148	98,828	113	98,771	5,572,667	56.4
22–23	0.001252	98,715	124	98,653	5,473,896	55.5
23–24	0.001318	98,591	130	98,526	5,375,243	54.5
24–25	0.001356	98,461	133	98,394	5,276,717	53.6
25–26	0.001384	98,328	136	98,260	5,178,322	52.7
26–27	0.001417	98,192	139	98,122	5,080,063	51.7
27–28	0.001453	98,053	142	97,981	4,981,941	50.8
28–29	0.001496	97,910	146	97,837	4,883,959	49.9
29–30	0.001545	97,764	151	97,688	4,786,123	49.0
30–31	0.001596	97,612	156	97,535	4,688,435	48.0
31–32	0.001645	97,457	160	97,377	4,590,900	47.1
32–33	0.001689	97,296	164	97,214	4,493,523	46.2
33–34	0.001728	97,132	168	97,048	4,396,309	45.3
34–35	0.001761	96,964	171	96,879	4,299,261	44.3
35–36	0.001804	96,794	175	96,706	4,202,382	43.4
36–37	0.001860	96,619	180	96,529	4,105,675	42.5
37–38	0.001924	96,439	186	96,347	4,009,146	41.6
38–39	0.001997	96,254	192	96,158	3,912,800	40.7
39–40	0.002082	96,062	200	95,962	3,816,642	39.7
40–41	0.002190	95,862	210	95,757	3,720,680	38.8
41–42	0.002323	95,652	222	95,541	3,624,924	37.9
42–43	0.002472	95,429	236	95,312	3,529,383	37.0
43–44	0.002637	95,194	251	95,068	3,434,072	36.1
44–45	0.002825	94,943	268	94,808	3,339,004	35.2
45–46	0.003027	94,674	287	94,531	3,244,195	34.3
46–47	0.003268	94,388	308	94,233	3,149,664	33.4
47–48	0.003585	94,079	337	93,911	3,055,431	32.5
48–49	0.003990	93,742	374	93,555	2,961,520	31.6
49–50	0.004456	93,368	416	93,160	2,867,965	30.7
50–51	0.004938	92,952	459	92,722	2,774,805	29.9
51–52	0.005420	92,493	501	92,242	2,682,083	29.0
52–53	0.005924	91,992	545	91,719	2,589,840	28.2
53–54	0.006458	91,447	591	91,151	2,498,121	27.3
54–55	0.007023	90,856	638	90,537	2,406,970	26.5
55–56	0.007618	90,218	687	89,874	2,316,432	25.7
56–57	0.008233	89,531	737	89,162	2,226,558	24.9
57–58	0.008871	88,794	788	88,400	2,137,396	24.1
58–59	0.009536	88,006	839	87,586	2,048,996	23.3
59–60	0.010246	87,167	893	86,720	1,961,409	22.5
60–61	0.011016	86,274	950	85,798	1,874,689	21.7